Remarks

The Office Action dated July 13, 2004 has been carefully reviewed and the following comments are made in response thereto. In view of the following remarks, Applicants respectfully request reconsideration and reexamination of this application and the timely allowance of the pending claims.

Applicants have amended claim 75 to delete the redundant term "therapeutically effective amount" in this claim and submit that the amendment in no way effects the scope of this claim. Applicants have added new claims 156 to 165 based upon the indication of allowable subject matter by the Examiner in the previous Office Action. As the language of these claims mirrors the previously pending claims with certain omissions, Applicants submit that no new subject matter has been added by these claims and that they are fully supported by the text of the specification.

Summary of the Office Action

1. Claim 75 was rejected under 35 U.S.C. 112 (second paragraph) for purportedly being indefinite for failing to distinctly claim the subject matter that Applicants regard as their invention.

2. Claims 75, 109, 127, 141 and 155 were rejected under 35 U.S.C. 112 (first paragraph) purportedly for not being enabled by the specification.

3. Claims 110, 128 and 142 were objected to as being dependent upon a rejected claim but were considered to be allowable if written in independent form.

Rejection under 35 U.S.C. 112 (second paragraph)

Claim 75 was rejected under 35 U.S.C. 112 (second paragraph) for purportedly being indefinite for failing to distinctly claim the subject matter that Applicants regard as their invention. Applicants appreciate the Examiner's suggestions in proposing language to overcome the rejection. Applicants have amended the claims in view of the Examiner's suggestions and now purport that the rejection is moot. According, Applicants request withdrawal of the rejection.

Rejection under 35 U.S.C. 112 (first paragraph)

Claims 75, 109, 127, 141 and 155 were rejected under 35 U.S.C. 112 (first paragraph) purportedly because the specification is only enabling for claims limited to a method of delivering a drug to a subject employing a nucleic acid encoding the entire amino acid sequence of SEQ ID NO: 51. Applicants respectfully disagree and submit that the as-filed specification discloses all that is necessary

for the ordinary skilled artisan to practice the claimed method of delivering a drug to a subject by administering an amount of a nucleic acid encoding an amino acid sequence comprising six contiguous residues from SEQ ID NO: 51.

Applicants submit that it would be routine for the skilled artisan to identify any six contiguous amino acids from SEQ ID NO: 51 that would specifically bind to the HPT1 receptor given the teachings of the specification. Applicant bring to the attention of the Examiner the disclosure in the specification relating to peptide motifs in the amino acid sequences of the isolated peptides which to GIT receptors (see page 63, line 21 to page 64, line 4). By aligning the sequences of different peptides which bind to a particular GIT receptor, Applicants were able to identify short sequence motifs associated with binding. The specification specifically identifies eight separate peptide motifs among peptides which bind to the HPT1 receptor. Applicants submit that the skilled artisan could readily use this information to identify the motifs of six or more amino acids in SEQ ID NO: 51 that would produce specific binding to the HPT1 receptor.

Applicants also bring to the attention of the Examiner the experimental data provided in the specification relating to identification of a core binding motif for multiple, distinct species of peptides which bind to the HPT1 receptor (see page 118, line 18 to page 124, line 24). Applicants disclose in the specification experimental methods and results for identifying binding motifs in multiple species of peptide which bind to the HPT1 receptor. Specifically, the specification discloses a binding motif for the PAX2 and HAX42 peptides which confer specificity for binding to the HPT1 receptor (see page 118, lines 22 to 28). These motifs were identified using a dansylated ELISA method employing multiple derivatives of the PAX2 and HAX42 peptides (see page 118, line 28 to page 119, line 19). In view of this disclosure, Applicants submit that the skilled artisan could readily determine, without undue experimentation, which contiguous sequence of six or more amino acid residues from SEQ ID NO: 51 confer binding specificity to the HPT1 receptor.

Applicants respectfully request reconsideration of the subject application in view of the above remarks and withdrawal of the rejections. It is respectfully submitted that this application is now in condition for allowance. Should the Examiner believe it to be useful, an interview with the Examiner is respectfully requested in order to discuss the foregoing claims.

If there are any fees due in connection with the filing of this amendment, please charge the fees to our Deposit Account No. 50-310. If a fee is required for an extension of time under 37 C.F.R. 1.136 not

accounted for above, such an extension is requested and the fee should also be charged to our Deposit Account.

Dated: **January 13, 2004**
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Respectfully submitted
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